

# Field Service Procedure

## Installation of the Ventilator Hose Moisture Reduction Kit Anesthesia



**Revision C**  
**2/9/04**  
**SP00264**

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## INSTALLATION OF THE VENTILATOR HOSE MOISTURE REDUCTION KIT

### 1 Preface

The Ventilator Hose Moisture Reduction Kit is intended for use on the Fabius GS and Fabius Tiro for the purpose of separating condensed moisture from the ventilator hose. This condensed moisture is typically associated with the provision of low flow anesthesia lasting for several hours. If the condensed moisture is not separated from the ventilator hose, it may impede the flow of ventilation gas, and may also cause an artifact "Fresh Gas Low" alarm to manifest. When used as intended, the Ventilator Hose Moisture Reduction Kit does not influence the performance of the Fabius GS and Fabius Tiro.

The Ventilator Hose Moisture Reduction Kit is compatible with all Fabius Tiro software versions and with Fabius GS software versions 1.22 and higher. You can determine the software version of your Fabius GS by placing the machine in Standby mode and observing the software version displayed on the monitor screen. If your Fabius GS does not have the required software needed for the installation of the Ventilator Hose Moisture Reduction Kit, please arrange for a no cost software upgrade by contacting Technical Support either by telephone at 1-800-543-5047, by fax at (215)721-5789, or by e-mail at TechSupport@Draegermed.com.

### 2 Kit Contents

There are two (2) available kits for Ventilator Hose Moisture Reduction. Kit number 4118299 is available for those machines with a left side mounted (when facing the machine) COSY Breathing System. Kit number 4118299-001 is available for those machines with a right side mounted (when facing the machine) COSY Breathing System.

The matrix below lists each kit and its contents.

**Table 1 Kit Parts Matrix**

Part Number	Description	QTY	Kit Number 4118299	Kit Number 4118299-001
4118395	25 cm Hose	1	X	X
2165619	35 cm Hose	1	X	X
8404985	Water Separator	1	X	X
SP00264	Service Procedure	1	X	X
4118303	Hex Key, 1/8 inch, L shaped	1	X	X
4118298	60 cm Hose Assembly	1	X	
4117152-001	150 cm Hose Assembly	1		X

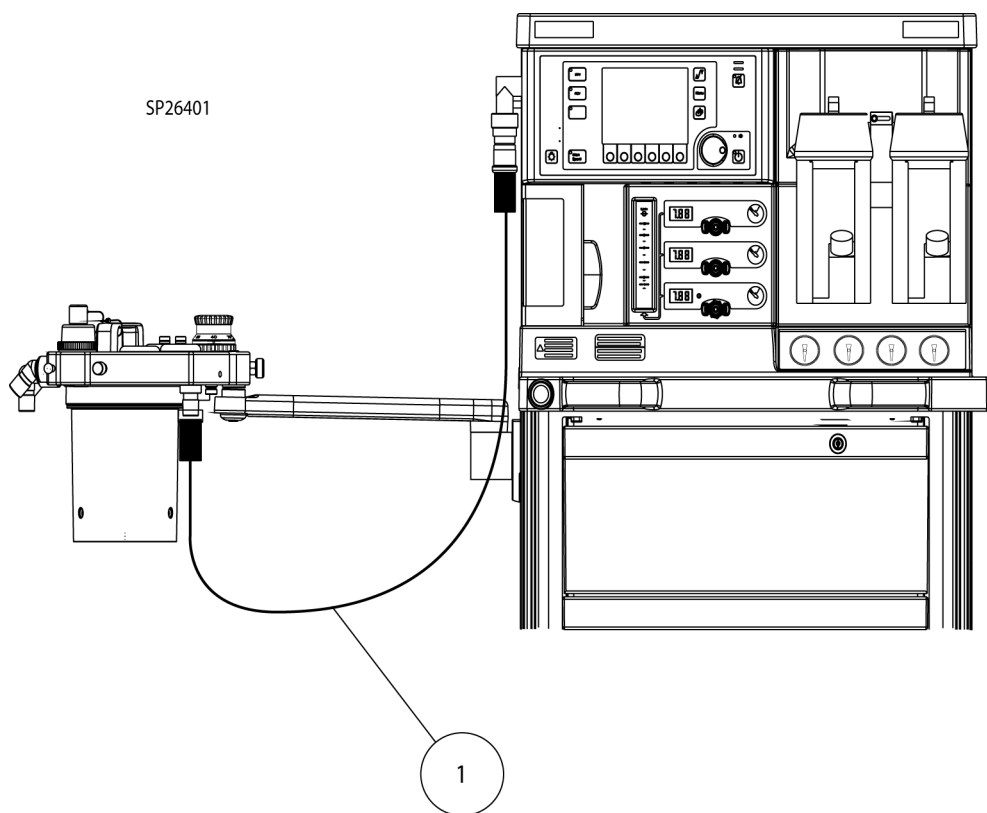
## Installation of the Ventilator Hose Moisture Reduction Kit

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### 3 Installation of the Ventilator Hose Moisture Reduction Kit

#### 3.1 Left Side Mounted COSY Breathing System (Kit Part Number 4118299)

1. Place machine in Standby mode.
2. Remove existing ventilator hose (1) by disconnecting the hose at the ventilator hose terminal found on the compact breathing system and unscrewing from the ventilator hose terminal located on the Fabius GS or Fabius Tiro machine. Refer to [Fig. 1](#).



FRONT VIEW OF THE MACHINE

**Fig. 1** Existing Ventilator Hose - Left Side Mounted COSY Breathing System



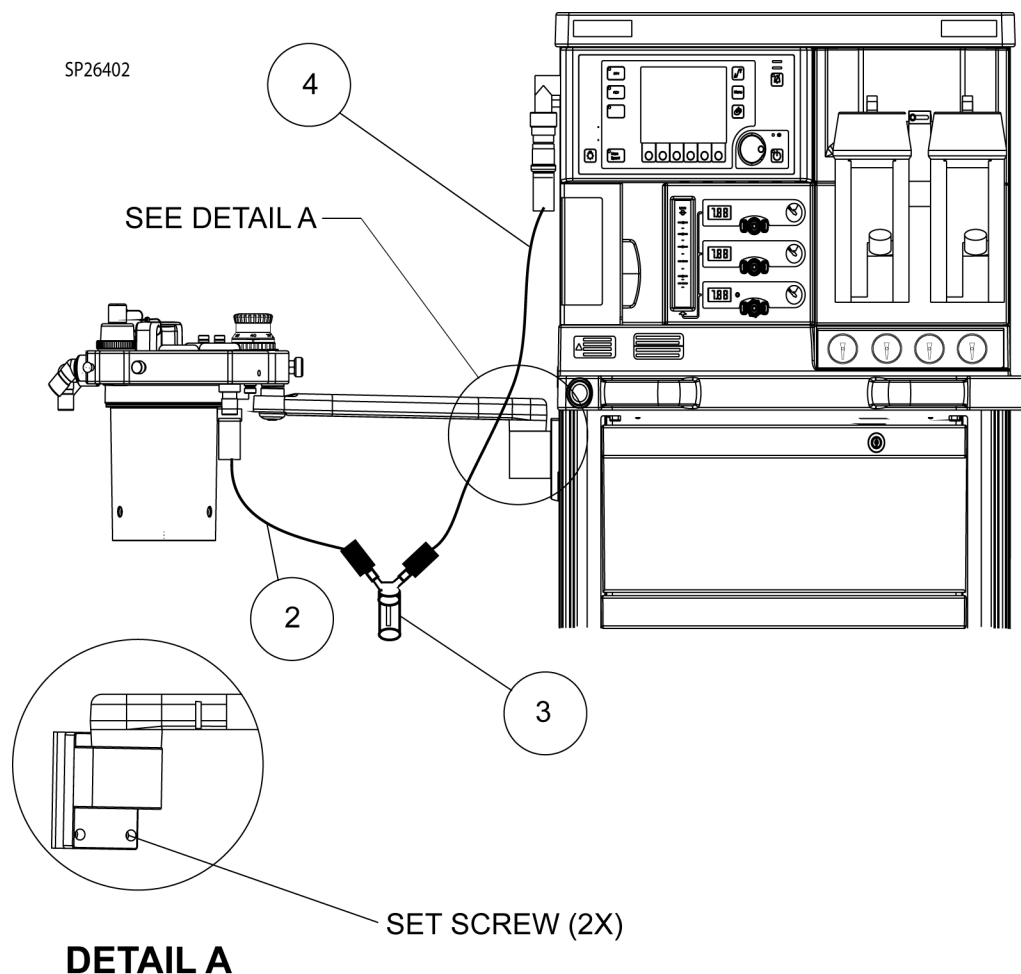
#### NOTE:

The Ventilator Hose Moisture Reduction Kit contains two (2) different hoses intended for use as item 2 on Figure 2. The two (2) hoses are different in length. Usage of the hoses is dependant upon the desired height in which the new water separator (3) is to be located.

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## Installation of the Ventilator Hose Moisture Reduction Kit

3. Connect one end of the new 35 cm hose (2) (P/N 2165619) or 25 cm hose (P/N 4118395) to the ventilator hose terminal located on the compact breathing system and the other end to the new water separator (3) (P/N 8404985). See Fig. 2.



**Fig. 2** Ventilator Hose Moisture Reduction Kit Installation - Left Side Mounted COSY Breathing System

4. Connect one end of the new 60 cm hose assembly (4) (P/N 4118298) to the threaded ventilator hose terminal located on the Fabius GS or Fabius Tiro machine and the other end of the new hose to the opposite side of the new water separator (3). See Fig. 2.
5. Utilizing the L shaped Hex Key (P/N 4118303) contained in the kit, reposition the compact breathing system mounting arm by loosening two set screws. Ensure that the height of the arm allows for the water separator to be located in the valley of the hose assembly. Refer to Fig. 2, Detail A for the location of set screws.

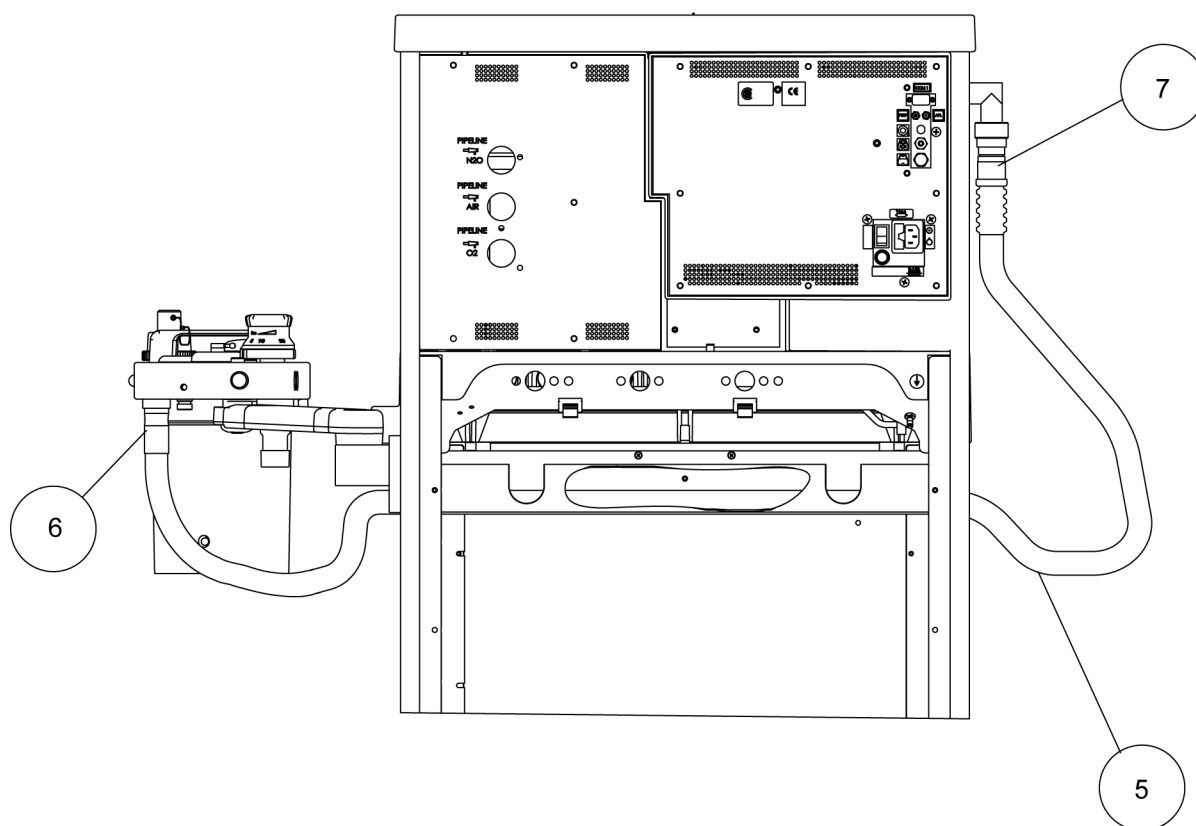
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### 3.2 Right Side Mounted COSY Breathing System

6. Tighten the set screws on the compact breathing system mounting arm once proper height is attained.
  7. Perform the tests as required by the [Performance Tests](#) portion of this document.
1. Place machine in Standby mode.
  2. Remove existing ventilator hose (5) by disconnecting the hose at the ventilator hose terminal (6) found on the compact breathing system and unscrewing from the ventilator hose terminal (7) located on the Fabius GS or Fabius Tiro machine. Refer to [Fig. 3](#) or [Fig. 4](#).

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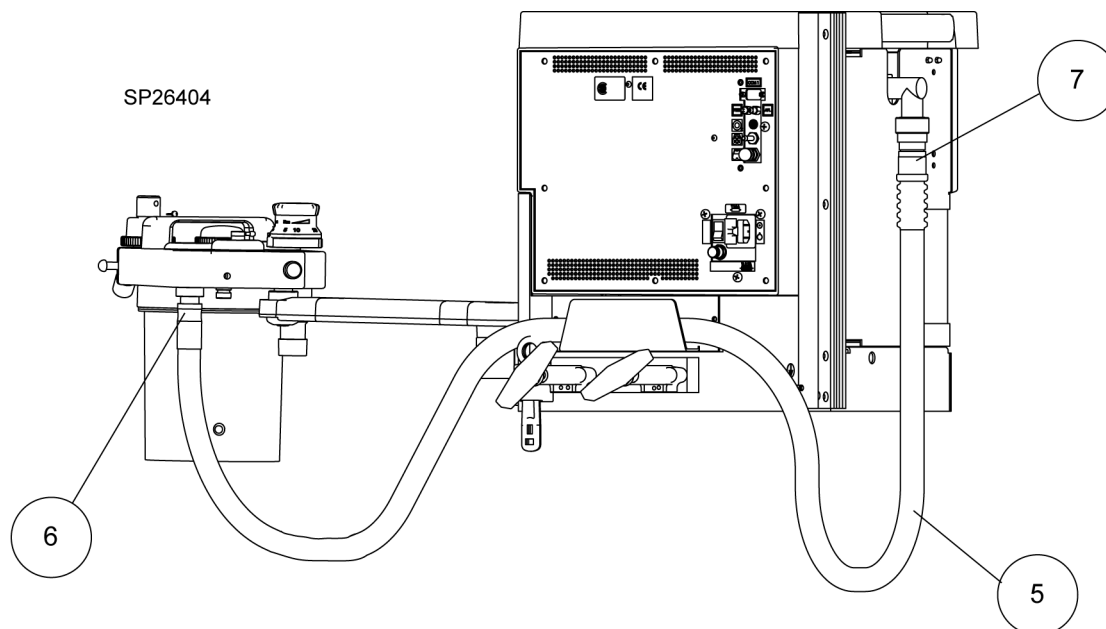


REAR VIEW OF THE FABIUS GS MACHINE

**Fig. 3** Existing Ventilator Hose on Fabius GS - Right Side Mounted COSY Breathing System

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## Installation of the Ventilator Hose Moisture Reduction Kit



REAR VIEW OF THE FABIUS TIRO MACHINE

**Fig. 4** Existing Ventilator Hose on Fabius Tiro - Right Side Mounted COSY Breathing System



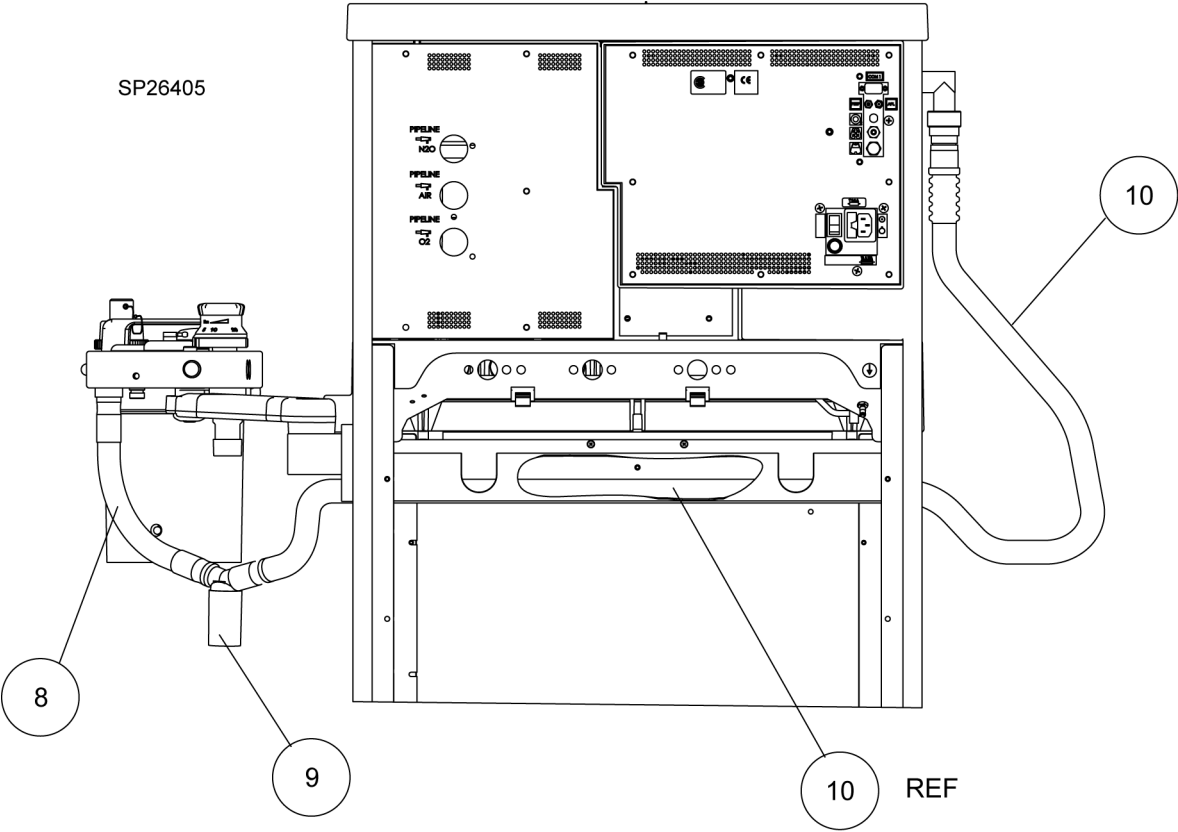
### NOTE:

The Ventilator Hose Moisture Reduction Kit contains two (2) different hoses intended for use as item 8 on [Fig. 5](#) or [Fig. 6](#). The two (2) hoses are different in length. Usage of the hoses is dependant upon the desired height in which the new water separator (9) is to be located.

3. Connect one end of the new 35 cm hose (8) (P/N 2165619) or 25 cm hose (P/N 4118395) to the ventilator hose terminal located on the compact breathing system and the other end to the new water separator (9) (P/N 8404985). See [Fig. 5](#) or [Fig. 6](#).

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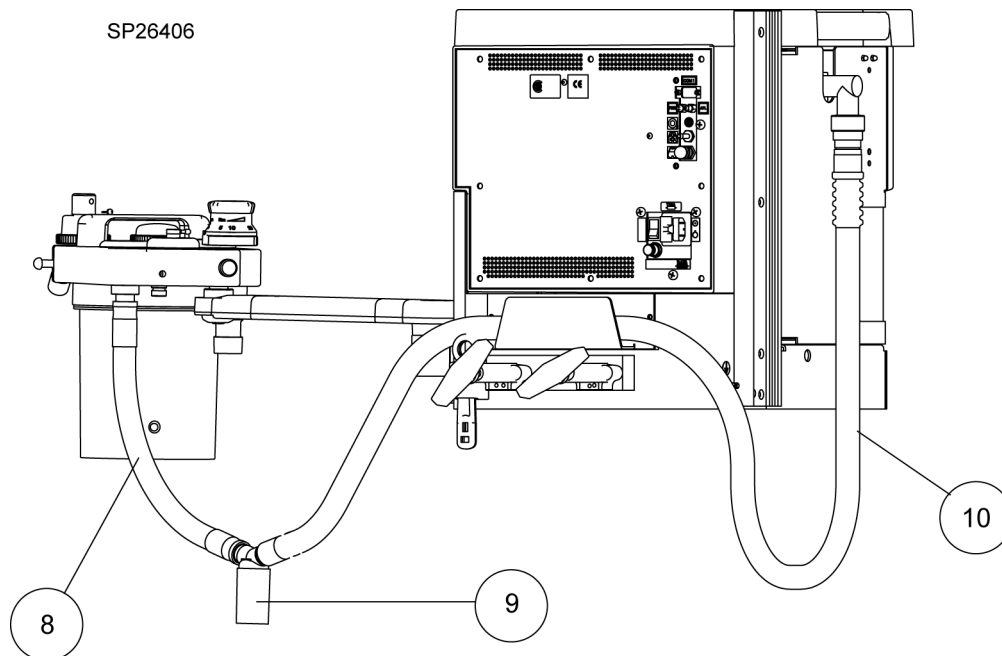


REAR VIEW OF THE FABIUS GS MACHINE

**Fig. 5** Ventilator Hose Moisture Reduction Kit Installation - Right Side Mounted COSY Breathing System on Fabius GS



## Service Procedure Installation of the Ventilator Hose Moisture Reduction Kit



REAR VIEW OF THE FABIUS TIRO MACHINE

**Fig. 6** Ventilator Hose Moisture Reduction Kit Installation - Right Side Mounted COSY Breathing System on Fabius Tiro

4. Connect one end of the new 150 cm hose assembly (10) (P/N 4117152-001) to the threaded ventilator hose terminal located on the Fabius GS or Fabius Tiro machine. See [Fig. 5](#) or [Fig. 6](#).
5. Routing of the 150 cm hose assembly (10):
  - a) If installing on a Fabius GS machine:
    - Route 150 cm hose assembly (10) through the channel located in the rear of the machine. Refer to [Fig. 5](#) for hose and channel location.
    - Adjust the position of the hose (10) in the channel ensuring that the water separator (9) maintains a vertical position.
  - b) If installing on a Fabius Tiro machine:
    - Route 150 cm hose assembly (10) through the U-shaped bracket located in the rear of the machine. Refer to [Fig. 6](#) for hose and bracket location.
    - Adjust the position of the hose (10) in the U-shaped bracket ensuring that the water separator (9) maintains a vertical position.
6. Attach the other end of the new hose to the opposite side of the new water separator (9). See [Fig. 5](#) or [Fig. 6](#).

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- Utilizing the L shaped Hex Key (P/N 4118303) contained in the kit, reposition the compact breathing system mounting arm by loosening two set screws. Ensure that the height of the arm allows for the water separator to be located in the valley of the hose assembly. Refer to [Fig. 2](#), Detail A for the location of set screws.
- Tighten the set screws on the compact breathing system mounting arm once proper height is attained.
- Perform the tests as required by the [Performance Tests](#) portion of this document.

### 4 PERFORMANCE TESTS

- Upon initial installation, perform a Leak and Compliance Test by pressing the Leak/Compliance Test soft key.
- Follow the on-screen instructions.
- Verify all tests indicate a PASS condition.

### 5 OPERATION



#### NOTE:

The water separator assembly is equipped with a valve that allows for its brief removal during active ventilation.

- During use, visually inspect the water separator for water content.
- When the water separator becomes approximately half filled with moisture, remove the bottom portion of the trap by twisting slightly.
- Discard the contents of the water separator appropriately.
- Replace the bottom portion of the water separator securely.

### 6 Recommendations for Typical Cleaning and Disinfection After Use



#### CAUTION:

The components of the Ventilator Hose Moisture Reduction Kit must not be treated with formaldehyde vapors or ethylene oxide.



#### WARNING:

Follow all of your acceptable hospital procedures for disinfecting parts contaminated with body fluids (protective clothing, eyewear, etc.).

- Autoclaving (including steam or hot air at 134° C, 273° F). Use your manufacturer's or your facility's recommendations.
- It is recommended that the Ventilator Hose Moisture Reduction Kit is cleaned and disinfected on a per patient basis.

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In the United States:  
Draeger Medical, Inc.  
3136 Quarry Road  
Telford, PA 18969  
USA

Tel: (215) 721-5402  
(800) 543-5047  
Fax: (215) 721-5785

In all other countries:  
Dräger Medical AG & Co. KGaA  
Moislinger Allee 53 – 55  
D-23542 Lübeck  
Germany

Tel: (++49) (0) 1805-3723437  
Fax: (++49) 451/882 - 3779

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